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ABSTRACT

Widespread provision of non-entertainment services by way of telecommunications can have a significant impact on rural growth and public services and on rural-urban migration patterns if the mix of these services and the places where they are to be introduced are chosen within the context of a national rural policy, and if local residents perceive these services as important to their felt needs and as instrumental in the fulfillment of their community goals. Thus, a marketing function of quite special character must be built into the research design. A professional who understands "communications as a management function" needs to be positioned on the project staff. This "marketing director" would be responsible, on site, for: (1) building awareness within the community of the potential in broadband communications technology, presenting the array of potential services in such a way as to facilitate community choices; and (2) relating the plan to install the contemplated broadband communications system to the appropriate elements of a community development plan. The marketing function will be especially helpful in the collection of four kinds of data crucial to the research design: baseline opinion survey, an inventory of existing communications technology, a needs agenda, and the potential subscriber market. An informal report on cooperative ownership of cable systems is appended. (NQ)

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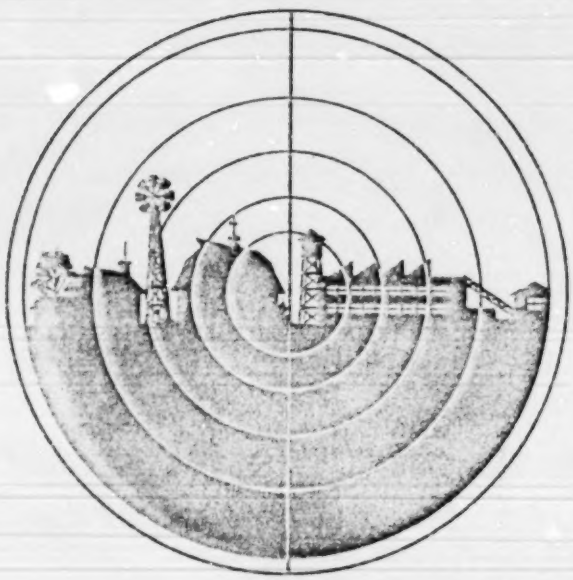

November 15, 16, and 17, 1976

Washington, D. C.

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Communications and Rural America

Purpose

In April 1976, the Office of Technology Assessment (OTA) of the U.S. Congress issued a staff report entitled *The Feasibility and Value of Broadband Communications in Rural Areas.* The purpose of the conference is to extend this effort by:

- Considering a broader range of communications technologies which might be used to meet rural needs.
- Further examining the question of whether system demonstrations aimed at achieving economic viability are needed and if so, identifying the kinds of demonstrations which might be undertaken.
- Further examining whether rural interests have been adequately considered in existing Federal communications policy.

The outcome of this effort will be a report incorporating the information and points of view presented at the conference.

Congressional Interest

The conference is being held in response to a request for additional information on rural communications from Senator Herman Talmadge, Chairman of the Senate Agriculture Committee, as approved by the 12 member Technology Assessment Board of the U.S. Congress. Senator Pastore of the Senate Subcommittee on Communications subsequently joined Senator Talmadge in support of the conference. It is intended that the conference will be of value to the U.S. Congress in its deliberations on communications policy.

Conference Dates and Organization

The conference will convene for 3 days, November 15–17, 1976, with about 60 invited participants. For the first 2 days, participants will be equally divided among three panels which will meet in parallel. Each panel will concentrate upon a specific topic addressed in the OTA report as follows:

- **Panel 1.** Rural Development and Communications.
- **Panel 2.** Technology, Economics, and Services.
- **Panel 3.** Federal Policy.

On the third day, participants from all three panels will meet together to exchange and synthesize findings and explicitly address the question of rural system demonstrations.

Cosponsoring Institutions

The National Rural Center is cosponsoring Panel 1 (Rural Development and Communications). The Aspen Institute is cosponsoring Panel 3 (Federal Policy).

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BROADBAND COMMUNICATIONS FOR RURAL DEVELOPMENT?

Yes -- but we will need a marketing concept.

A paper for discussion

by Calvin Kytle Associates

Washington, D.C.

No one familiar with the history of cable television can seriously quarrel with the thrust of what the Office of Technology Assessment calls its "preliminary evaluation" of the feasibility of broadband communications in rural areas.

Indeed, one can only applaud the OTA report for its idealism and be grateful for its recommendations. Its virtues are two-fold: (1) it brings together in one place all the important arguments for the strategic use of new communications technologies for rural development; and (2) it posits a systems approach as the only economically feasible way of putting these technologies into service to meet the diverse needs of rural populations. To be sure, the same rationale has been advanced for some years by a number of futurists, and at least on HUD-sponsored experiment, Peter Goldmark's "urban village," is attacking the notion from the other end. But in no previous study, certainly no study under such prestigious auspices, has it been proposed that the Federal government mount system demonstrations as a guide to Congressional action, on a scale useful to the formation of basic public policy. Assuming a favorable Congressional reception, the report could provide fresh impetus to the communications revolution that has been notably becalmed since 1972.

We have been asked to address ourselves to one of several key questions that the proposed system demonstrations would be designed to answer: "Would widespread provision of non-entertainment services by way of telecommunications along the lines outlined in the report have a significant impact on rural growth and public services and on rural-urban migration patterns?"

Our answer has to be a qualified yes. Yes, if. And though the "ifs" can be expected to accumulate, none are likely to be more crucial than the two that will have to be faced as the system demonstrations are first conceptualized. Yes, we say -- (1) if the mix of these non-entertainment services and the places where they are to be introduced are chosen within the context of a national rural policy -- an "if" that may imply the need for an even broader policy on urban growth and population dispersal; and (2) only if local residents perceive these services as important to their felt needs and as instrumental in the fulfillment of their community goals -- an "if" that presumes the existence of locally oriented plans for rural development.

These two "if" suggest two important questions for OTA's project planners. In the absence of a national rural policy, can and should system demonstrations be of significant help in building a national consciousness of the need for such a policy? Absent local plans for rural development, can the process for introducing broadband systems be designed and carried out as a way of motivating rural residents to draft

such plans?

If broadband communications systems are to serve more than some vague goal of "growth", the answers to both these questions must be yes.

Similarly, we submit that the successful consumation of OTA's thesis will depend how those questions are answered. If the answers are other than yeas, the very values that now attract so many millions to the countryside will not be preserved; and the presumed objectives or rural development -- a higher standard of living and an improved quality of life for rural Americans -- will be lost.

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The appeal of rural America has apparently grown in inverse ration to the average American's decreasing affection for big cities. The evidence is not only in the census figures cited in the OTA study* but in the findings of a profusion of recent polls and surveys, the latest of which comprise a TV message from Atlantic Richfield. Reporting on 50,000 responses to ARCO's request for "thoughts on life in America by the year 2076." actress Lee Remick drives the point home: "Nearly three-guarters of you say you want a slower-paced life in a rural environment."

*Between 1970 and 1975, a net of 1.6 million persons moved from urban to rural areas, reversing the historic migration pattern.

Although for some cities the exodus has created a perilous shrinkage of the tax base, the new trend is generally viewed as encouraging, as something that can only be good for the country as a whole. Continuing migration, it is said, will relieve the congestion in metropolitan centers and at the same time bring more money and more opportunities to people who have traditionally been several tributaries removed from the economic mainstream. As the trend has grown, so too has the conviction that advanced communications systems can be used to accelerate it.* By providing a vast array of commercial services -- teleconferences, data gathering, document exchange, meter reading -- more businesses can be persuaded to decentralize and relocate; through a combination of entertainment and personal services (teleshopping, banking, home security, and so on), the newly migrated employees and their families can be made happier and less inclined to yearn for the amenities they left behind; and by substituting communications for transportation in the performance of some aspects of health care, job counseling, education, law enforcement, and the like, the additional public services required can be met without excessive strain on local treasuries. Few persons doubt the ability of the new tech-

*"In conjunction with transportation, telecommunications has enabled business and industry to locate nearly anywhere.... These same forces could, to some degree, give families an option to move away from highly congested urban centers -- an option whose exercise may increase with continuing improvement in the quality and capacity of communications links." The Changing Issues for National Growth, the 1976 Report on National Growth and Development, the U.S. Department of Housing and Urban Development, May 1976.

nologies to deliver as promised, although almost everybody wonders how their high capital costs can be financed. The most common concern seems to be whether the technologies can be made operative before the next energy crisis, which is sure to come and which, under accelerated programs of urban conservation, might bring a sudden end to rural immigration and trigger a movement back to the inner cities.

There are, of course, other concerns, among them the uncertain impact of such technologies on human sensibilities, lifestyles, and social relationships. The pivotal question, however, may be the effect that uneven distribution of the new rural populations -- concentrated in the areas that the new technologies have made more accessible and more attractive -- would have on the rural environment. ("Would then," we might ask Ms. Remick, "the environment still be rural?") A few figures will make the point. On May 1, 1976, the U.S. population totaled about 215 million. Despite the much publicized decline in the birth rate, population is increasing at the rate of 0.8 percent, or 1,700,000 persons a year. For the past few years the fertility rate for American families has been slightly lower than that necessary for population replacement -- about 1.8 children per family. There is much doubt, however, that this rate can remain constant, since fluctuations in fertility rates seem to parallel the business cycle. Still, assuming that it does remain constant, and that present legal and illegal immigration rates are maintained, U.S. population will reach 282 million by the year 2000. It will go on growing indefinitely

after that. Under the most favorable circumstances, our population could not be stabilized until the year 2025.

Computers are yet to calculate the toll these increased numbers -- an estimated 67 million more persons during the next 25 years -- will take of our non-renewable environmental resources. But the challenge to communications planners would seem to be plain: to make communications an instrument not merely for accelerating rural growth but for channeling it into areas best equipped to support it.

Planners must also take into account the no less pressing reality that as yet there has been no swelling demand for the fabulous non-entertainment services broadband communications systems have to offer. Scientists and technicians seem to be enchanted by the prodigious capacities of their inventions, and a growing cadre of public managers is excited about the prospect of using them. But at present the consuming public seems to be, if not bored by announcements of new miracles, quite content with the daily miracles they live with. Told that a full-range, interactive communications system could supply a limitless number of channels; that it is capable of doing anything that can now be done by the printing press, radio, TV, the telephone, and the computer; and that it has the unique capacity to do all these things instantly and with infinite abundance, the average American says okay, so what else is new, and turns back to "All in the Family," the game of the week, or "As the World Turns." So far, the only profitable service CATV has been able to sell

in rural areas has been the delivery of the usual TV fare to areas that theretofore either had very poor TV reception or no reception at all. In urban areas, where high rises and skyscrapers often interfere with over-the-air signals, cable owners have successfully marketed the delivery of an improved picture, plus special programming via pay-TV. The benefit most generally acknowledged by cable subscribers is that they have a wider choice of old movies; among pay-TV subscribers it is the opportunity to see newer movies and sports events that the networks are prohibited from carrying. What sells -- that is, what has been selling -- is promise of more or better entertainment.

It should also be borne in mind that the audience for serious public affairs programs has been no greater, no more intense, on cable-TV than on over-the-air TV, where as is well known it has remained at a low and remarkably steady level. Clearly, if there is to be any broad support for the investment of public funds in programming for minority interests, or in the delivery of public services through exotic uses of the fibre-optic cable, the American taxpayer will have to be convinced first that such an investment will have a measurable effect on his family's health, education, career aspirations, and recreation needs. He will, moreover, have to be persuaded that the cable can deliver these services in some fashion superior to existing delivery systems. Such awareness is not likely to be achieved through a system demonstration whose design does not include a marketing function as a major component.

However, this need for marketing - call it, if you will, a need to educate policy developer and the public alike - is not limited to this issue. Earlier we suggested the need for developing support for sound rural policies. As we look at problems facing a nation - energy, transportation, growth and no-growth, the environment and land-use - we seem to be at a point in our history where a profound and major public education effort is required as a precondition of progress toward virtually any of the goals that Americans say they want. Now, in societal terms, communications is first and foremost the process by which facts and feelings are shared and public policies shaped and fulfilled. Therefore, the value of expanding broadband communications services in rural America will be diminished significantly, if not eroded entirely, unless the effort proceeds with as much concern for how the technology can help people shape public policy on the crucial issues of the future as for the cost/benefit ratios of meter reading, hospital visits and security systems.

* * *

At root, the fact that America is still some years removed from being "a wired nation" derives from our failure to resolve a familiar issue in American economic history. Shall we progress by "muddling through" or by orderly plan?* Should broadband development be left to the forces of the free market or should it be guided and controlled by agencies of government? Regrettably, the debate so far has proceeded along either-or lines, as if private and public enterprises are mutually exclusive.

The strongest case for leaving development to the free market was advanced in the 1972 report of the Sloan Commission.

*At a 1972 symposium sponsored by the Mitre Corporation, Herman Kahn gave primacy to muddling through, in the conviction that "the more educated people are the more wrong-headed they are."

It concluded that cable should be allowed to grow "as conventional television has grown: on the basis of its accomplishments," an argument that has heavily structured all subsequent discussion. And if what counts are statistical averages, business success stories, and popular acceptance as measured at the cast register, the argument can be telling. In his popularization of the 1970 census, The American People, E. J. Kahn, Jr., reports: "...television was not even a subject of inquiry until 1950. By 1970, however, the medium had become so prevalent that the Bureau had already begun to consider dropping it from consideration. By then, 95.5 percent of the housing units in the United States had television." In industry terms, the medium's rise to dominance was even more meteoric; it took only 15 years to achieve what advertisers' consider 100 percent saturation. By March 1976 there were 115.9 million TV sets in 68.5 million U.S. homes.

Growing "as conventional television has grown" has nevertheless left some sizeable pockets. There are still almost 5 million U.S. households with no television receivers. More than 22 million households receive only four or fewer signals, a number that the FCC considers less than "adequate." In rural areas, 1 million households receive no television service, an additional 2.4 million get one relatively poor signal, and a total of 6 million get two or fewer signals. These figures prevail despite the fact that cable-TV has penetrated 1900 areas outside the reach of conventional television and brought TV to a total of 7 million rural subscribers who theretofore

were either entirely or markedly deprived.

Everything we know about private enterprise tells us that it works only where profit is commensurate with the risk. Plainly, some needs of the poor and of the geographically isolated cannot be met at a profit, a fact that the Federal government has recognized programmatically since the New Deal. It is the rationale for rural electrification, for public housing, and, qualifiedly, for the interstate highway system.

The OTA report says implicitly that development of broadband communications in rural areas will have to be planned and that it will have to be financed through a combination of public and private funds. It suggests further that pricing policy will have to be based on a clear distinction between social objectives and economic objectives. But the report deals only superficially with the criteria for community planning of the systems that will meet these distinctive objectives. Further, it virtually ignores the need for a marketing strategy to promote citizen involvement in the planning process.

Which leads us to sound another cautionary note: Broadband communications can help rural development only if we keep brightly in our foreconscious that communication is not merely hardware, not merely the links by which sight and sound are transmitted and received. In the human society -- and most particularly in a free society -- communication is a not altogether predictable process by which people relate to one another and to the institutions that are supposed to serve them. Most of our problems in communications are not technical. They are

at base not even problems of money. Communication problems are essentially psychological and political problems. To the extent that they are dealt with institutionally they are management problems.

It is this important consideration that the OTA report seems to have neglected and to which the rest of this paper will be addressed.

* * *

"Broadband communications systems," says the OTA report, "will succeed or fail to the degree that their characteristics match the varying needs and economic considerations of each rural area in which they are located." Agreed. The report is, however, very sketchy about the kinds of local institutional arrangements that will be required to plan, build, and operate the systems. Community planning units are referred to but not described. The relationship between community planning units and owner-operators isn't even touched on. Presumably this relationship will vary depending on the nature of the ownership, which itself will vary according to the nature of the county -- private entrepreneurs in Turnaround Acceleration counties, rural cooperatives in Turnaround Reversal counties, and local governments or subsidized private industry in Declining counties. But is community planning to be subsumed under the owner/operator? Or will the planning unit function independently but only until such time as an owner/operator can be found to take over? Or will the community planning unit, once the system is planned,

be converted into a community board to which the owner/operator relates contractually as a manager? The report doesn't say. The conceptual problem, of course, is with the word, "owner." Whoever owns an enterprise also controls it (or at least thinks he does) and throughout the OTA report there is the tacit assumption that control of the systems will be shared.

Our point here is not to argue necessarily for one form of ownership over another but for whatever form is most likely to guarantee that every system is tailored and operated to meet expressed community needs. It strikes us that of all existing forms of economic organization the nonprofit cooperative -- with its traditionally strong emphasis on membership participation and its proven readiness to serve customers that private entrepreneurs won't -- is best suited for purposes of the demonstrations.* Still, we feel instinctively that the varied mix of services, programs, clients, and technology projected in the OTA concept may in actuality argue for a brand-new kind of organization -- one in which a desirable balance between private incentive and public service is established and maintained through a quasi-public federation to which many different kinds of organizations belong.** With this in mind, it seems premature to argue, as the OTA report does on page IV-47, that a

*For an informal report on cooperative ownership of cable systems, see Addendum.

**It should be noted that development of the more sophisticated broadband-narrowband networks envisaged by OTA will inevitably take place where first and second generation technology is already in place under private for-profit ownership. In

common carrier concept is incompatible with common access. As systems mature, it could well be that a separation of distribution from programming would provide both freer access to cable channels and a richer variety of programs.*

But to repeat ourselves, our main concern is that there be built into the project design an opportunity for a community-wide learning experience. The OTA study says it perhaps too timidly. We think it imperative not merely that the systems "match the varying needs and economic conditions" of the particular communities involved but that these needs be defined participatively by the citizens of those communities. If only because ultimately the means will determine the end, the system must be designed to help the local community meet its own goals for development -- which theoretically should be to grow within its capacity to provide needed public services and without destroying the human and environmental values its citizens think worth preserving. Otherwise, the system, in the unlikely

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western states particularly, governments have found it desirable to connect with these existing systems and to augment over-the-air programming with instructional and educational TV supported by state funds. Utah, where only 1 percent of the households are served by cable, nevertheless has 100 percent TV coverage through a network of translators supported entirely by local tax jurisdictions. In Wyoming, 54 percent of the households are covered by translators and 38 percent by cable, interconnected by microwave. Source: "A Preliminary View of Rural Broadband Services," report of the Policy Support Division, Office of Telecommunications, U. S. Department of Commerce, 1973.

*According to Steven R. Rivkin, former counsel to the Sloan Commission on Cable Communications, foreclosing on development as a common carrier would also disqualify cable systems for REA loans.

circumstance that it survives its initial government subsidy, will be simply another exploitative enterprise, busily and mindlessly urbanizing the countryside. Given an existing community plan, the system must be custom-built to that plan's goals and constraints. If the community has no plan, then whoever, or whatever, is leading the system demonstration must assume responsibility for initiating one.

Thus, for the system demonstrations to succeed, a marketing function of quite special character must be built consciously into the research design. More specifically, the unresolved issues and complexities of relationships inherent in the systems concept demand that a professional who understands communications as a management function be positioned on the project staff at a level second in status only to that of the project director. We define the job in so general a way for the simple reason that there is no single word or phrase to describe it adequately. In sum, the job must embrace the functions that in other institutional contexts are known variously as public information, community organization, advertising, market research, sales, product promotion, and public relations. Whoever holds this job will, in practice, be doing what in private corporations is done by the vice president for marketing. Unhappily, we have few models for this function in nonprofit, public institutions. The failure to structure it as a distinct but integral unit of the Community Action Agency was, in our reflective judgment, an important reason that in so many communities the anti-poverty program was

frustrated. Essentially what this function does is to provide the indispensable link between research and action; no valid exercise in citizen participation can work without it.

This "marketing director" would be responsible, on site, for two things:

1. Building awareness within the community of the potential in broadband communications technology, presenting the array of potential services in such a way as to facilitate community choices.

2. Relating the plan to install the contemplated broadband communications system to the appropriate elements of a community development plan.

To carry out the first of these responsibilities, the marketing director will have to have the full complement of conventional PR/advertising skills. As the chief interpreter of cable technology to the community, he must first of all know enough about his subject to command the respect of the system's engineers. He must be able to work well with mass media, he must be able to write clearly and persuasively, he must be able to promote and conduct all kinds of meetings, and he must know how to stage exhibits, expositions, and video fairs. He must be able to work as much from faith in process as from a sense of desired objectives. He must, above all, be sensitive to community opinion, listening as much as talking. And he must do and be all these things as part of an overall strategy

to involve local people in the planning of the system itself.* In the last analysis, only local people properly led and motivated can identify specific economic, social, and cultural programming that will permit telecommunications to expand to something beyond an entertainment medium.

In carrying out this second responsibility, the marketing director will have to have some of the basic skills and enthusiasms of the advocacy planner and community organizer, as well as those of a video freak. For long before the cable is in place he will find it important to use some of the new technologies as instruments of community motivation. He should be thoroughly familiar with the work of the Canadian Film Board, first with the 16mm. camera and later with the portable, half-inch video tape record. He should know what students at the Alternate Media Center at New York University have been doing in small rural communities, and be equally conversant with the experiments in interactive television in Kutztown, Pa. In addition, he will find it profitable to monitor the experiences of local chapters of League of Women Voters in the use of cable for organizing group discussions of significant policy issues. And for an insight into the social dynamics of discussion programs in rural settings, he should pay particular attention to the work of the Farm Bureau Advisory Councils in Ohio. At various times, in his efforts to excite community leaders to the potential in non-entertainment cable services, he will have occasion to use all tnese techniques, plus some of his own.

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* Encouragingly, that same ARCO survey found that "there is a strong desire -- almost two-thirds -- for more individual participation in government through better communication."

The premises for a marketing concept are succinctly stated in the OTA report: "Institutional and public service use of broadband is novel and unfamiliar....A way to expose communities to the program is required....there must be a high degree of community support for the system....Without such a commitment, it is unlikely that a system demonstration will work."* The premises are introduced and dropped much too casually, however. Our fear is that unless its role is given greater emphasis now the tendency will be to introduce marketing expertise too late into the contemplated two-year planning process and that its contribution to every phase of installation will be discounted. Marketing must begin at the first stages of site selection; it can only grow in importance as the systems become operational.

The marketing function will be especially helpful, once the demonstration communities have been identified, in the collection of four kinds of data crucial to the research design:

1. Baseline opinion survey. How much do residents of the community already know about broadband communications? How much do they need to know? What areas of ignorance constitute the greatest problem in developing community support for the proposed broadband system? Who in the community are the most knowledgeable? Who are the most enthusiastic about the prospect of telecommunications services? Who are the least enthusiastic? Is there any substantial resistance to the introduc-

*Pages IV-68 and IV-69.

tion of the system? If so, where does this resistance lie and what are the reasons for it? What are the most frequently voiced objections to the coming of broadband? And so on.

2. An inventory of existing communications technology. How many local households do not now have television coverage? How many telephones? What commercial services are already being performed through in-place telecommunications? (It is not without significance that sometime last year AT&T officials in Washington determined that, of all the services identified by the Department of Commerce as attributes of broadband systems, 90 to 95 percent could be accomplished through adaptive uses of the telephone.)

3. A needs agenda. Unlike the appeal of Mount Everest to Sir Edmund Hilary, all broadband services are not attractive just because they're there. Consumers will have their own priorities and one of the first prerequisites for a workable research design will be to ascertain as precisely as possible those perceived needs and wants that can best be met through improved communications technology. In this connection, a couple of mild caveats:

One, efforts to apply more TV technology to public education are likely to meet with a resistance unanticipated by writers of the OTA report. The resistance will be certain unless the purposes are defined at the outset in ways acceptable to both parents and teachers and in ways that do not relate to the generally disappointing experience with teaching

machines. The back-to-basics movement, now particularly strong in some rural areas, was in part inspired by parental hostility to the gadgetry of tele-learning and to the feeling that the machines' excessive use had depersonalized the pupil-teacher relationship.

Second, the value of special programming of entertainment for rural and small-town audiences should not be minimized as a basic marketing appeal for broadband systems. It is no secret that over-the-air TV programming is heavily biased toward urban markets. Two years ago CBS summarily canceled "Gunsmoke" and several other popular programs with the explanation that despite their high ratings they appealed to older citizens and rural residents who did not constitute sufficient market for the sponsors' products. In any well-run cable system of the future, local program origination should figure as a significant community service. While data on comparative audience preferences are incomplete, some research would undoubtedly yield an inventory of films and tapes of special appeal to rural and small-town audiences. The prospect seems real that, if cablecast to discrete audiences on a repetitive schedule, these programs could be offered to advertisers at rates competitive with those of special interest print media.

4. The potential subscriber market. Determination of an installation/operating budget starts with what are essentially two marketing questions, addressed to local citizens: "How

Many of you will pay a monthly subscription fee for the programs and services cable could bring you? How much are you willing to pay a month?"

* * *

For many of us the new communications technologies are threateningly seductive. So, as we prepare to judge the wisdom and results of even a demonstration project, we would be well to keep in mind the story about the old farmer who was persistently unresponsive to the young county agent. "Why?" asked the county agent with exasperation. "Why won't you try any of the things I tell you about when it's proven that they'll improve your land and increase your crop yield and make you prosperous?"

"Young man," said the farmer, not unkindly. "I ain't farming now half as well as I know how."

Moral: As we put together a grand design for the future, let us make sure to consider the unrealized potential in our existing technologies.

And too, we should be mindful that modern communications technology has the capacity to bring us together, with all the risks of community, as well as to keep us apart, with all the risks of a people hiding in their individual cells. Recognizing the need for both privacy and companionship, for both solitude and laughter, let us make sure that in attempting to use this or any other technology to meet the needs of a pluralistic society we do not become a more fragmented, isolated one, with no community of spirit or goals.

CK
10/14/76

ADDENDUM

MEMORANDUM: The case for cooperative ownership of rural telecommunications systems.

Rural telecommunications is not "television." Rather it is people-to-people programming using television technology. If we accept the validity of this assertion we can build a strong case for adopting the rural cooperative as the best model for establishing a rural telecommunications system.

An examination of a rural, viewer-owned telecommunications cooperative, perhaps the only inclusive broadband system in the country anywhere near ready to go on line, should help determine the soundness of this thesis.

The Western Wisconsin Communications Cooperative is a consortium of 23 cooperatives and seven schools in Trempealeau County and an additional school in adjoining Jackson County. With a $1,238,000 loan from the Farmers Home Administration the communications cooperative is designing the first phase of a broadband communications network accessible to all 9,500 households in Trempealeau County. The ultimate cost of the system, which combines cable and microwave technology, may reach six million dollars.

The county's schools will form the backbone of the initial system and provide the major share of operational costs in the

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Note: CKA is grateful to Tom Hoy, of the National Rural Electric Cooperative Association, for the data on which this memorandum is based.

form of user fees. The network will also include linkages with hospitals, schools, police and fire stations, and businesses, as well as dwellings.

Use of the system by the schools apparently offers the best hope for the economic viability of this network in a county where densities reach as low as 3.5 households per cable mile, far below commonly accepted figures for a profitable cable operation.

One of the principal organizers of WWCC is the Trempealeau Electric Cooperative. In addition to supplying leadership, financial support, and office space to the cable system, the electric co-op will use the new system in its own operations -- for reading meters, monitoring sub-stations, and other technical applications. The electric co-op has purchased a video "porta-pak" camera and plans to produce short programs as a service to members.

In this viewer-owned system every resident of the county will not only have access to the cable but will have some voice in its management and policy and in its operation and system design. This contrasts with present and past franchising policies in many areas, where access has been denied rural people just outside city limits.

If the Western Wisconsin Communications Cooperative succeeds the nation will have a reliable yardstick to use in evaluating future cable telecommunications design.

But even while this intensely interesting project is evolving, it is possible to identify some essential requirements

for a rural telecommunications system:

1. Local leadership should take the initiative in forming the system. Opportunities for participation by all interested persons should be provided. Residents of the service area, and only they, can identify their needs sufficiently to plan the kinds of social and cultural programming that would allow telecommunications to serve as more than an entertainment medium. It is only a logical extension of this to say that decisions should remain in the hands of community leaders rather than communications experts; a "network style" is not required or desirable for rural telecommunications programming.

2. Local institutions should be involved. Businesses should be encouraged to apply for channels to use in developing new merchandising and distribution methods. Trempealeau County banks are considering using the system there to eliminate the need for checks. Forms of technical assistance will be needed to help business and other community institutions to get maximum benefits from new systems.

3. Rural telecommunications systems should be started on a small scale so that allowances can be made for failure and adaptations can be made easily. The system should be designed so that it can be operated efficiently by local personnel after technical consultants have left.

4. In most instances, the funding of existing television organizations should be discouraged. Their programming shows a general lack of vision and a resistance to experimental uses of the medium.

5. National organizations can encourage local affiliates to participate in the formation and operation of telecommunications systems. Support for local and state rural electric cooperatives has long been a high priority of the National Rural Electric Cooperative Association.

Those who doubt that rural people can master the complexities of telecommunications should be reminded that when farm residents first started forming rural electrical systems there were skeptics who said farmers could not run electric utilities. Today there are 1,000 member-owned rural electric co-ops delivering electric power to 25 million farm residents.